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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,555	03/20/2001	Takanori Yokoyama	503.39781X00	3956

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EXAMINER

PUNIT, PRAKASH C

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/787,555

Applicant(s)

YOKOYAMA ET AL.

Examiner

Prakash C Punit

Art Unit

2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

DIANE O. MUZZRAH
PRIMARY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8. 6) ☐ Other: .

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DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on March 03, 2000. These drawings are considered.

Claim Objections

2. Claim 5 is objected to because of the following informalities:

In claim 4, line 4, the claim recitation of "the sending or receiving" should be --sending or receiving --. Correction is required.

In claim 5, line 4, the claim recitation of "s second network" is unclear. Correction is required.

Claim 6, is objected to as being dependent upon an objected to independent claim 5.

Specification

3. The disclosure is objected to because of the following informalities: Applicant has not made a statement that the specification does not include new matter. There are two specifications included. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:



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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 recites the limitation “the data of said periodic message” in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation “the data of said event message” in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation “said device” in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation “the said memorized message” in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation “the said memorized message” in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (U.S. Patent No. 5,832,397) in view of Leung (U.S. Patent No. 6,321,148).

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As to claim 1, Yoshida et al. discloses a gateway comprising: periodical message receiving means (CPU 1111) for receiving a periodic message delivered periodically onto one network for reading in data (see column 5, lines 47-52; also see column 7, lines 49-52; where “periodically” is read on “at a constant interval”); memory means (1114) for storing the data of the periodic message (see column 6, lines 44-53); message value change detecting means (register 2115) for detecting the change of the value of the data stored in the memory means (see Fig. 15; also see column 7, lines 38-46; also see column 11, lines 1-13; where “change is value” is read on “data transmission errors”); and when the message value change detecting means (register 2115) detects a change of the value of the data (see column 11, lines 45-52; where comparing against preset detection timing value implies checking for change in the data).

Yoshida et al. does not teach event message sending means for delivering the data stored in the memory means as a message on another network.

Leung teaches event message sending means (see Leung, element ECU 11) for delivering the data stored in the memory means (see Leung, Fig. 2, element 30) as a message on another network (see column 6, lines 27-42; response from ECU11 to ECU12 implies data is transmitted from one network to another).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Yoshida et al. to include event message sending means for delivering the data stored in the memory means as a message on another network.

It would have obvious to a person having ordinary skill in the art at the time the invention was made to have modified Yoshida et al. by the teachings of Leung, because by having a means

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to deliver data stored in a memory to another network, enables in easy and prompt communication between different ECUs, also resulting in overall economical design.

As to claim 2, Yoshida et al. discloses a gateway comprising: periodical message sending means (CPU 1111) for delivering periodically the data stored in the memory means (1114) as a message on a different network (see column 6, lines 44-50; also see column 7, lines 49-55; also see column 8, lines 63-67).

Yoshida et al. does not teach event message receiving means for receiving an event message delivered onto one network in response to an event or demand for reading in data; memory means for storing the data of the event message.

Leung teaches event message receiving means (see Leung, element ECU 11) for receiving an event message delivered onto one network in response to an event or demand for reading in data (see column 6, lines 27-42; response from ECU11 to ECU12 implies data is transmitted from one network to another); memory means for storing the data of the event message (see Leung, Fig. 2, element 30).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Yoshida et al. to include event message receiving means for receiving an event message and a memory means for storing the data of the event message.

It would have obvious to a person having ordinary skill in the art at the time the invention was made to have modified Yoshida et al. by the teachings of Leung, because by having an event message receiving means for receiving an event message and a memory means for storing the

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data of the event message, enables in easy and prompt communication between different ECUs, also resulting in overall economical design.

7. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (U.S. Patent No. 5,832,397) in view of Lee (U.S. Patent No. 6,542,506).

As to claim 3, Yoshida et al. discloses a distributed system comprising:

at least one device for performing periodically the sending or receiving of a message is connected (see Fig. 1; also see column 5, lines 47-52); at least one device for performing the sending or receiving of a message in response to an event or demand (see column 6, lines 6-14; also see column 7, lines 6-11; where “event” is read on “error”); and the gateway having periodical message receiving means (CPU 1111) for receiving messages which the first network sends periodically (see column 5, lines 47-52; also see column 7, lines 49-52; where “periodically” is read on “at a constant interval”), memory means (1114) for storing the message received by the periodical message receiving means (see column 6, lines 44-53), message value change detecting means (register 2115) for detecting the change of the value of the data included in the message stored in the memory means (see column 11, lines 45-52; where “change is value” is read on “data transmission errors”), and event message sending means for producing a message from the data stored in the memory means when the message value change detecting means (register 2115) detects a change of the value of the data, and for delivering the produced message to the second network (see column 11, lines 45-52; where comparing against preset detection timing value implies checking for change in the data).

Yoshida et al. does not teach a gateway connected to the first and second networks.

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Lee teaches a gateway connected to the first and second networks (see Lee, column 4, lines 4-25).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Yoshida et al. to include a gateway connected to the first and second networks.

It would have obvious to a person having ordinary skill in the art at the time the invention was made to have modified Yoshida et al. by the teachings of Lee, because by having a gateway connected to the first and second networks, the data processing rate becomes faster, and memory copying during the data path searching performed in the gateway is reduced, thereby minimizing the overhead of the gateway (see Lee, column 6, lines 37-46).

As to claim 4, Yoshida et al. as modified discloses a distributed system, wherein the device for performing periodically the sending or receiving messages is an engine controlling device or an ACC control unit (see column 5, lines 13-20), and the device for performing the sending or receiving of messages in response to an event or demand is a navigation system or an internet terminal (see column 1, lines 10-19).

As to claim 5, Yoshida et al. discloses a distributed system comprising:
a message generated at a predetermined time interval resides (see column 7, lines 49-53; where “predetermined time interval” is read on “constant interval”); a message generated in response to an event or demand resides (see column 6, lines 6-14; also see column 7, lines 6-11; where “event” is read on “error”); and having a memory part (1114) and a processing part (1112); the

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processing part (1112) of the gateway (1100) causing to memorize in the memory part (1114) the message generated by the first network at a predetermined time interval (see column 7, lines 49-53; where "predetermined time interval" is read on "constant interval"), detecting a change of the value of the data included in the memorized message (see column 11, lines 45-52; where comparing against preset detection timing value implies monitoring for change in the data) and producing a message from the data memorized in the memory part when a change of the value of the data is detected (see column 11, lines 55-65).

Yoshida et al. does not teach a gateway connected to the first and second networks.

Lee teaches a gateway connected to the first and second networks (see Lee, column 4, lines 4-25).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Yoshida et al. to include a gateway connected to the first and second networks.

It would have obvious to a person having ordinary skill in the art at the time the invention was made to have modified Yoshida et al. by the teachings of Lee, because by having a gateway connected to the first and second networks, the data processing rate becomes faster, and memory copying during the data path searching performed in the gateway is reduced, thereby minimizing the overhead of the gateway (see Lee, column 6, lines 37-46).

As to claim 6, Yoshida et al. as modified discloses a distributed system, wherein the processing part (1112) causes to memorize in the memory part (1114) the message generated in

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response to an event or demand, and at a predetermined time interval (see column 7, lines 49-53; where “predetermined time interval” is read on “constant interval”).

Yoshida et al. does not teach the second network and delivers the memorized message to the first network.

Lee teaches the second network and delivers the memorized message to the first network (see Lee, column 5, line 52 through column 6, line 10).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Yoshida et al. to include the second network and delivers the memorized message to the first network.

It would have obvious to a person having ordinary skill in the art at the time the invention was made to have modified Yoshida et al. by the teachings of Lee, because by having a second network and being able to deliver the memorized message to the first network, the data processing rate becomes faster, and memory copying during the data path searching performed in the gateway is reduced, thereby minimizing the overhead of the gateway (see Lee, column 6, lines 37-46).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of art with respect to automotive network in general:

U.S. Patent No. 6,321,148 to Leung – teaches vehicle communication control

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U.S. Patent No. 5,832,397 to Yoshida et al. – teaches electronic control unit

U.S. Patent No. 6,542,506 to Lee – teaches transferring data between networks

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prakash Punit whose telephone number is (703) 305-5914. The examiner can normally be reached on Mondays – Fridays from 9:45 am to 6:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached on (703) 305-3830. The fax numbers of the group is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Prakash Punit
Patent Examiner
Au 2175

June 16, 2003

~~DIANE D. MURRAY~~
~~PRIMARY PATENT EXAMINER~~
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